



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,051	03/18/2004	Ronald S. Plantan	011351.52877US	4611
23911 7590 10/08/2008 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300				
EXAMINER				
BURCH, MELODY M				
ART UNIT		PAPER NUMBER		
3657				
MAIL DATE		DELIVERY MODE		
10/08/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/803,051

**Applicant(s)**

PLANTAN, RONALD S.

**Examiner**

Melody M. Burch

**Art Unit**

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 1988.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by WIPO 2004/026649 to Simmons.

Re: claims 1-3. Simmons shows in figure 5 a brake disc 18 comprising a hub portion shown immediately to the left of the circle at the end of lead line 24, a friction portion shown in the area of the circle at the end of element number 18, the friction portion formed as a generally planar ring and a connecting flange portion shown in the area to the right of the circle at the end of the lead line for element number 20 wherein the connecting flange portion connects a radially outer region of the hub portion to a

radially inner region of the friction portion radially inward from a radially inner most friction surface of the friction portion, the connecting flange portion has a length such that when the hub portion and a wheel rim as labeled in the annotated version of figure 5 of Simmons provided in this Office action (see pg. 6) adapted to be mounted on a hub end as labeled of a vehicle axle 14 are concentrically located at the hub end of the axle, the friction portion is outboard of the wheel rim, and the friction portion has an outer radius greater than a greatest inner radius of the wheel rim as shown.

Re: claims 4-6. Simmons in figure 5 shows an at least one heat-conduction limiting section or reduced thickness shown at the bottom of the portion shown in the area of the end of the lead line of number "18".

Re: claims 7-9. Simmons shows in figure 5 at least one ventilation aperture as labeled in the annotated figure provided in this Office action.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of US Patent Application 2002/0166740 to Zhang.

Simmons describes the invention substantially as set forth above, but is silent with regards to the presence of cooling fins.

Zhang teaches in figures 2 and 2A the use of a disc having cooling fins 243 disposed about an inner radius of the friction portion.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the disc of Simmons to have included cooling fins, as taught by Zhang, in order to provide a means of improving heat dissipation.

5. Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of US Patent 4583609 to Anderson et al.

Re: claim 16. See the rejection of claim 1 but Simmons is silent with regards to the disc brake including a brake caliper adapted to be affixed to a caliper mount on the vehicle axle such a braking force generated by the brake caliper is applied to the brake disc.

Anderson et al. teach in figure 2 and in col. 2 lines 7-10 the use of a brake disc having a friction portion outboard of a wheel rim that is arranged such that braking force generated by a brake caliper adapted to be affixed to a caliper mount 84 on the vehicle axle 42 is applied to the brake disc.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the disc brake of Simmons to have included a brake caliper, as taught by Anderson et al., in order to provide a means of generating pressure to exert on the brake disc to decelerate the wheel.

Re: claims 17-19. Simmons, as modified, teaches in figure 5 of Simmons an at least one heat-conduction limiting section or reduced thickness shown at the bottom of the portion shown in the area of the end of the lead line of number "18".

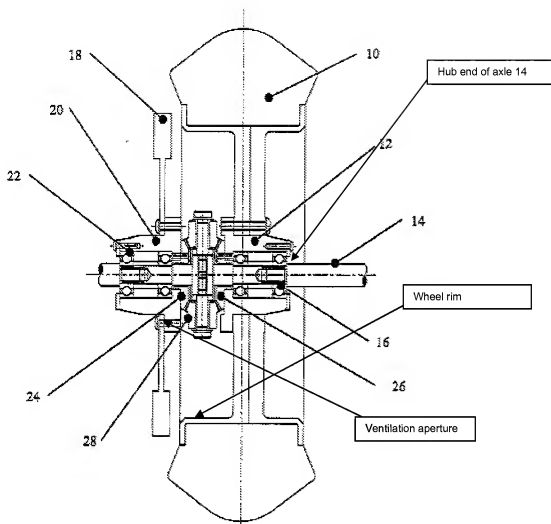
Re: claims 20-22. Simmons, as modified, teach in figure 5 of Simmons at least one ventilation aperture as labeled in the annotated figure provided in this Office action.

6. Claims 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons in view of Anderson et al. as applied above, and further in view of US Patent Application 2002/0166740 to Zhang.

Simmons, as modified, describes the invention substantially as set forth above, but is silent with regards to the presence of cooling fins.

Zhang teaches in figures 2 and 2A the use of a disc having cooling fins 243 disposed about an inner radius of the friction portion.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the disc of Simmons, as modified, to have included cooling fins, as taught by Zhang, in order to provide a means of improving heat dissipation.



### ***Response to Arguments***

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection prompted by the addition of the word "concentrically" in the independent claims.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Melody M. Burch** whose telephone number is 571-272-7114. The examiner can normally be reached on **Monday-Friday (6:30 AM-3:00 PM)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Robert Siconolfi** can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb  
October 3, 2008

/Melody M. Burch/  
Primary Examiner, Art Unit 3683